

REMARKS

Claims 83 and 85 have been amended to clarify memory management unit operation. Dependent Claims 87 - 92 have been added to claim the invention with more particularity. No claims have been canceled. Accordingly, Claims 41 - 92 are now pending.

On page 2 of the present Office Action, the Examiner repeats the assertion from prior office actions that "The amendment filed 12/10/03, 12/23/03 and 2/11/04 are objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure". By the "amendment filed 12/10/03, 12/23/03 and 2/11/04", Applicants' Attorney once again assumes that the Examiner means (a) the Amendment submitted 10 December 2003, (b) the Supplemental Amendment submitted 23 December 2003, and (c) the Amendment submitted 11 February 2004 for revising the text, and does not include the further Amendment submitted 11 February 2004 for revising the drawings since the 11 February 2004 Amendment to Drawings does not present any revision(s) to the specification. Subject to this assumption, the objection to the 10 December 2003 Amendment, the 23 December 2003 Supplemental Amendment, and the 11 February 2004 Amendment to Text as introducing new matter into the disclosure is again respectfully traversed.

On page 2 of present Office Action, the Examiner again alleges that deletion of the material "which is typically a first in first or (FIFO) buffer" at lines 4 and 5 on page 7 of the specification introduces new matter into the disclosure. Presumably the Examiner again means the last clause of the sentence "SD 26 demultiplexes and depacketizes the data stream, storing the demultiplexed compressed audio and video data in data buffer 48, which is typically a First-In-First-Out (FIFO) buffer" in the paragraph bridging pages 6 and 7 of the specification.

As specified on page 2 of the Response submitted 1 July 2005 and on page 9 of the Amendment submitted 27 July 2005, data buffer 48 cannot actually be a FIFO buffer (in hardware) despite the disclosure in the specification that "SD 26 demultiplexes and depacketizes the data stream, storing the demultiplexed compressed audio and video data in data buffer 48, which is typically a First-In-First-Out (FIFO) buffer". Instead of repeating the prior explanation as to why buffer 48 cannot be a FIFO, the Examiner is again simply referred to page 2 of the 1 July 2005 Response and the earlier material referred to there.

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Applicants' Attorney presented the following additional remarks on page 10 of the 27 July 2005 Amendment:

On page 3 of the 1 July 2005 Response, Applicants' Attorney pointed to the holding of Ex parte Brodbeck (PTOBA 1977) 199 USPQ 230 that correcting a technical error in a utility U.S. patent application does not introduce new matter if a person skilled in the relevant art would appreciate not only the existence of the error but what the error is. Skilled-artisan affidavit evidence was utilized in Brodbeck to explain why the language at issue was erroneous and how it should be corrected in light of the knowledge of a person skilled in the art.

A declaration of Alin Theodor Iacob, a person of high skill in the semiconductor memory art, accompanied the 1 July 2005 Response to show that persons skilled in the art would recognize that buffer 48 in the specification of the present application is not actually a FIFO or a FIFO buffer. The procedure employed in Brodbeck to correct an error in a U.S. patent application has thus been followed in the present application. In accordance with Brodbeck and In re Oda et al. (CCPA 1971) 170 USPQ 268 cited as authority in Brodbeck, deletion of the material "which is typically a first in first or (FIFO) buffer" at lines 4 and 5 on page 7 of the specification corrects an error that would be readily recognized by persons skilled in the relevant art and does not introduce new matter into the specification.

In regard to the Iacob declaration, the Examiner states on page 2 of the 14 July 2005 Advisory Action that "In reply, please see the final office action Para 6". Paragraph 6, page 6, of the 27 April 2005 Office action states that deletion of the material "which is typically a first in first or (FIFO) buffer" at lines 4 and 5 on page 7 of the specification "is a new matter because the applicant defined the buffer which is a FIFO buffer" and that "The applicant can not delete it in order to modify the scope of the specification". This, however, is not the law for the present situation.

Repeating what was stated above, a technical error in a U.S. patent application can, in accordance with Brodbeck and Oda, be corrected by presenting skilled-artisan evidence to show why the technical language is incorrect and how it should be corrected in light of the knowledge of a person skilled in the art. Since such a showing has been made in the present application, the objection to deletion of the material "which is typically a first in first or (FIFO) buffer" at lines 4 and 5 on page 7 of the specification as introducing new matter into the disclosure of the invention has been overcome.

Responsive to the preceding remarks, the Examiner asserts on pages 6 and 7 of the present Office Action that:

In response to pages 9-10, the applicant states that the deleted of "which is typically a First-In-First-Out (FIFO) buffer is not new matter because

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it is a terminology error by the person(s) who prepared the present application by submitting the case laws such 199 USPQ 230 which is stated that changing the wording of a sentence is not new matter as long as the meaning of the sentence is not changed and 170 USPQ 268 which is states the application which is translated from Japanese to English which contains some errors "nitric acid" vs. "nitrous acid; "ferrous oxide" vs. "iron" and replacing iron with reduce agent where reduce agent is defined iron. Therefore, the applicant of the application of these case law can correct these errors.

By the language "199 USPQ 230 which is stated that changing the wording of a sentence is not new matter as long as the meaning of the sentence is not changed", the Examiner presumably means that Ex parte Brodbeck (PTOBA 1977) 199 USPQ 230 somewhere states "that changing the wording of a sentence" in a U.S. patent application "is not new matter as long as the meaning of the sentence is not changed". However, nowhere does this statement or anything reasonably close to this statement appear in Brodbeck.

Brodbeck deals with a situation in which the claim language "at least 40 percent of the catalyst pores have a radius greater than about 45 A" was changed by reissue to "at least 40 percent of the catalyst pore volume is from pores having a radius greater than about 45 A". The closest that Brodbeck comes to the language cited by the Examiner appears to be the material on page 231 where the Board of Appeals stated that:

Appellant has furnished declarations by Dr. Hubert and Dr. Harrison to support his position. Dr. Harrison declares that in his opinion the original version on the patent and the reissue version "say the same thing because pore volume and not the number of pores is measured as a function of pore diameter when catalysts are analyzed with respect to porosity." Hence the language from the patent "means that in the catalyst at least 40% of the pore volume was from pores having a radius greater than 45A.", and "the proposed reissue language merely clarifies the language" used in the patent.

The foregoing material is merely the appellate Board's summary of the applicant's position in Brodbeck. To the extent that this material may approach the Examiner's language "changing the wording of a sentence is not new matter as long as the meaning of the sentence is not changed", the foregoing material from page 231 of Brodbeck is not the Board's holding in Brodbeck. Nowhere does Brodbeck hold that changing the wording of a sentence in a U.S. patent application is not new matter as long as the meaning of the sentence is not changed.

Instead, the appellate Board in Brodbeck observed later on page 231 that "Appellant has furnished the opinions of two experts, based on stated facts, to the effect that one skilled in the art would recognize both that appellants' patent limitation does not [emphasis added]

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mean what it literally says, and also what the intended meaning is". Citing In re Oda et al. (CCPA 1971) 170 USPQ 268, the appellate Board in Brodbeck then held that "A change of wording to correct an error is not new matter if one skilled in the relevant art would appreciate not only the existence of the error in the specification but what the error is". In other words, Brodbeck holds that correcting a technical error in a utility U.S. patent application does not introduce new matter into the application if a person skilled in the relevant art would recognize the error and how it should be corrected.

The Examiner asserts later on page 7 of the present Office Action in further response to the additional remarks presented on page 10 of the 27 July 2005 Amendment that:

These two cases [i.e., Brodbeck and Oda] do not states that the applicant can correct the errors in order to change the scope of the invention. In this case , the applicant defined the buffer being a FIFO buffer which has a different function than RAM, DRAM. Therefore, the applicant can not delete it in order to modify the scope of the specification for present a different or preferred form of the invention.

As pointed out above, Brodbeck holds that correcting a technical error in a utility U.S. patent application does not introduce new matter into the application if a person skilled in the relevant art would recognize the error and how it should be corrected. The same is true of Oda. In particular, the Court of Customs and Patent Appeals ("CCPA stated on page 272 of Oda in regard to the change of "nitrous" to "nitric" in the specification that:

On all the evidence, we conclude that one skilled in the art would appreciate not only the existence of the error in the specification but what the error is. As a corollary, it follows that when the nature of this error is known, it is also known how to correct it. We therefore disagree with the board's first conclusion that the change of "nitrous" to "nitric" is "new matter".

The material characterizing data buffer 48 as a FIFO at lines 4 and 5 on page 7 of the specification of the above application is a technical error. Skilled-artisan evidence, i.e. the Iacob declaration, has been presented to show that buffer 48 cannot be a FIFO and that a person skilled in the relevant art would recognize that buffer 48 cannot be a FIFO. The standard prescribed in Brodbeck and Oda for correcting the technical error at lines 4 and 5 of the specification of the above application has been met.

Inasmuch as buffer 48 cannot be a FIFO, the procedure for correcting the error in characterizing buffer as a FIFO in the material at lines 4 and 5 on specification page 7 is

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simply to delete that material. Hence, deletion of the FIFO material at lines 4 and 5 on specification page 7 does not introduce new matter into the specification.

In regard to the Examiner's assertions that Applicant(s) defined buffer 48 as "a FIFO buffer which has a different function than RAM, DRAM" and that Applicant(s) therefore "can not delete it in order to modify the scope of the specification for present a different or preferred form of the invention", one could argue that correction of the technical errors at issue in Brodbeck and Oda changed the scope of the applications dealt with in those two cases. However, the CCPA in Oda and the Board of Appeals later in Brodbeck determined that correction of the technical errors at issue in Oda and Brodbeck did not introduce new matter into the applications dealt with in those cases. Consequently, refusal to permit deletion of the FIFO material at lines 4 and 5 on page 7 of the specification of the above application on the asserted grounds that doing so would modify the scope of the specification for presenting a different preferred form of the invention is not a valid objection when, as in the present circumstances, skilled-artisan evidence has been presented to show that a person skilled in the relevant art would recognize the FIFO technical error and how to correct it.

Furthermore, the scope of the specification of the above application cannot limit buffer 48 to a FIFO because buffer 48 cannot be a FIFO in light of the skilled-artisan evidence presented with the 1 July 2005 Response. Deletion of the FIFO material at lines 4 and 5 on page 7 of the specification therefore does not change the scope of the specification.

The Examiner further alleges on page 2 of the present Office Action that substitution of the term "buffer" for "FIFO" at page 7, line 7, page 10, lines 12, 26, and 27, page 11, line 30, and page 23, lines 29 and 30, introduces new matter into the disclosure. These changes involve buffer 48. That is, "FIFO 48" has been changed to "buffer 48" at the foregoing places in the specification.

As stated on page 11 of the 27 July 2005 Amendment, changing "FIFO" to "buffer" at the indicated places in the specification completes the correction of an error that would be readily recognized by persons skilled in the relevant art for the reasons presented on page 5 of the 1 July 2005 Response and does not introduce new matter into the specification. As with the first-mentioned new-matter objection, submission of the Iacob declaration overcomes this objection

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Repeating what was said on page 11 of the 27 July 2005 Amendment, the net result is that none of the objected-to material introduces new matter into the disclosure. There are no legitimate grounds for the continued objection to deletion of any of the indicated material as introducing new matter into the disclosure of the invention. The 35 USC 132 objection to the 10 December 2003 Amendment, the 23 December 2003 Supplemental Amendment, and the 11 February 2004 Amendment to Text as introducing new matter into the specification needs to be withdrawn.

Claims 41 - 52, 55 - 60, 62 - 75, and 78 - 86 have been rejected under 35 USC 103(a) as obvious based on Okada et al. ("Okada"), U.S. Patent 5,668,601, in view of Maturi et al. ("Maturi"), U.S. Patent 5,559,999. This rejection is respectfully traversed.

The pertinent material of Okada was summarized in the Amendment submitted 10 December 2003 and was repeated in both the 1 July 2005 Response and the 27 July 2005 Amendment. That material is again repeated below for the Examiner's convenience:

Okada discloses an audio/video decoding system having parser 4, audio decoder 2, and video decoder 3. Parser 4, including internal demultiplexer 5, separates (demultiplexes and depacketizes) an incoming audio/video data stream into an audio data stream, an audio presentation time stamp, a video data stream, a video presentation time stamp, and a system clock reference. The audio presentation time stamp and the audio data stream are respectively sequentially stored in first-in-first-out ("FIFO") register 11 and FIFO bit buffer 12, both of which are components of audio decoder 2. The video presentation time stamp and the video data stream are respectively sequentially stored in FIFO register 21 and FIFO bit buffer 22, both of which are components of video decoder 3. The system clock reference goes to controllers 14 and 24 of respective decoders 2 and 3.

Bit buffers 12 and 22 automatically sequentially provide the audio and video data streams respectively to decoder core circuits 13 and 23 of decoders 2 and 3 for decoding and presentation in synchronism at times determined respectively by controllers 14 and 24. Audio controller 14 determines when audio decode core circuit 13 decodes the current audio data of the audio data stream as a function of the system clock reference, the audio presentation time stamp, and the various transmission-delay/processing times in audio decoder 2. Video controller 24 similarly determines when video decode core circuit 23 decodes the current video data of the video data stream as a function of the system clock reference, the video presentation time stamp, and the various transmission-delay/processing times in video decoder 3. The decoding and presentation of the video data is synchronized to the decoding and presentation of the audio data by way of the system clock reference supplied to controllers 14 and 24.

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Applicants' Attorney further noted in the 1 July 2005 Response and the 27 July 2005 Amendment that:

The foregoing summary applies to a first embodiment of Okada's decoding system as shown in Fig. 1. Audio decoder 32 replaces audio decoder 2 in a second embodiment of Okada's decoding system as depicted in Fig. 2. Audio decoder 32 consists of the components of audio decoder 2 plus time stamp generator 41. In the second embodiment, video decoder 3 becomes video decoder 33 in which video controller 42 replaces video controller 24. A third embodiment of Okada's decoding system, as shown in Fig. 6, also contains audio decoder 32. In the third embodiment, video decoder 33 becomes video decoder 82 in which video controller 83 replaces video controller 42.

The pertinent material of Maturi was similarly summarized in the 10 December 2003 Amendment and repeated in the 1 July 2005 Response and the 27 July 2005 Amendment¹. The summary of Maturi is again likewise repeated below for the Examiner's convenience:

Maturi discloses an interrupt-based system for decoding an incoming audio/video data stream. Pre-parser 22 parses (demultiplexes and depacketizes) the audio/video data stream, stores the audio and video headers respectively in audio and video buffers 20c and 20a, and stores the audio and video data respectively in audio and video channel buffers 20d and 20b. In storing the audio and video headers in header buffers 20c and 20a, pre-parser 22 interrupts host microcontroller 18 and provides the audio and video headers with respective tags that identify the starting channel-buffer addresses of the audio and video data. In response to the interrupt, microcontroller 18 extracts the presentation time stamps from pre-parser 22 and stores the presentation time stamps in memory 18a. Audio and video decoders 28 and 26 later respectively decode the audio and video data under the synchronism control of microcontroller 18.

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¹ "27 July 2005 Response" should have read "1 July 2005 Response" in the statement on page 12 of the 27 July 2005 Amendment that "The pertinent material of Maturi was similarly summarized in the 10 December 2003 Amendment and repeated on page 6 of the 27 July 2005 Response.

In addition, channel controller 34 in Maturi controls the operation of units 22, 24, 26, 28, 30, and 32. This includes controlling the transfer of PES video headers from pre-parser 22 to video header buffer 20a of DRAM 20 and the transfer of PES audio headers from pre-parser 22 to audio header buffer 20c of DRAM 20.

Independent Claims 41 and 67 respectively recite:

41. A decoder system comprising:

a control unit capable of performing multiple tasks and capable of being interrupted during at least one of the tasks to perform at least one other of the tasks;

a data buffer comprising a video input buffer and an audio input buffer;

a stream demultiplexer for receiving an incoming data stream comprising data packets each comprising at least one of (i) encoded video data and a video header that contains video timing information for the encoded video data and (ii) encoded audio data and an audio header that contains audio timing information for the encoded audio data, the stream demultiplexer operating

(a) to demultiplex and depacketize the data packets without interrupting the control unit,

(b) to send the encoded video data to the video input buffer for storage there without the video timing information,

(c) to provide, for use by the control unit, video messages which identify where the encoded video data is stored in the video input buffer and which also deal with the video timing information, and

(d) to send the encoded audio data to the audio input buffer for storage there;

a video decoder that decodes the encoded video data to produce decoded video data utilizing video instructions provided from the control unit as to where the encoded video data is stored in the video input buffer; and

an audio decoder that decodes the encoded audio data to produce decoded audio data.

67. A method comprising:

receiving an incoming data stream comprising data packets each comprising at least one of (i) encoded video data and a video header that contains video timing information for the encoded video data and (ii) encoded audio data and an audio header that contains audio timing information for the encoded audio data;

demultiplexing and depacketizing the data packs without interrupting a control unit capable of performing multiple tasks and capable of being

interrupted during at least one of the tasks to perform at least one other of the tasks;

storing the encoded video data in a video input buffer without the video timing information;

providing, for use by the control unit, video messages which identify where the encoded video data is stored in the video input buffer and which also deal with the video timing information;

decoding the encoded video data to produce decoded video data using video instructions provided from the control unit as to where the encoded video data is stored in the video input buffer;

storing the encoded audio data in an audio input buffer; and

decoding the encoded audio data to produce decoded audio data.

Claims 41 and 67 require that the control unit be "capable of performing multiple tasks" and be "capable of being interrupted during at least one of the tasks to perform at least one other of the tasks".

Applicants' Attorney pointed out on page 12 of the 1 July 2005 Response and on pages 14 and 15 of the 27 July 2005 Amendment² that audio controller 14 in Okada does not appear capable of undergoing interruption to service a component other than audio decode core circuit 13 and that video controller 24 (or 42 or 83) in Okada likewise does not appear capable of undergoing interruption to service a component other than video decode core circuit 23. The Examiner seems to acknowledge that this is true with the statement on page 4 of the present Office Action that "Okada fails to disclose . . . a control unit capable of performing multiple tasks and capable of being interrupted during at least one of the tasks to perform at least one other of the tasks".

With the foregoing in mind, Claims 41 and 67 are patentable over Okada and Maturi for substantially the reasons presented on pages 8 - 12 of the 1 July 2005 Response. Subject to the revisions made to Claims 41 and 67 in the 27 July 2005 Amendment, these reasons are largely repeated below to facilitate understanding why the continued 35 USC 103(a) obviousness rejection of Claims 41 and 67 is wrong.

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² Please ignore the hand-written annotations inadvertently left on page 15 of the 27 July 2005 Amendment. In the first full paragraph on that page, "proposed" should read "proposed way" in the sentence "Since each of Claims 41 and 67 now requires that the control unit be 'capable of being interrupted during at least one of the tasks to perform at least one other of the tasks', combining Okada and Maturi in the proposed would not achieve the subject matter of Claim 41 or 67 even if there were some motivation or incentive for combining the two references".

As pointed out on page 19 of the 10 December 2003 Amendment, Claims 41 and 67 each require that there be generated, for use by the control unit, video messages which identify where the encoded video data is stored in the video input buffer. In Claim 41, the video messages are generated by the stream demultiplexer. Since video bit buffer 22 in Okada is a FIFO, Okada does not generate video messages akin to the video messages of Claims 41 and 67. This is acknowledged in the present Office Action by the statement on page 4 that "Okada fails to disclose a step of providing [video messages which] identify where the encoded video data is stored in the video input buffer and audio messages which identify the location of encoded audio data in the audio buffer . . ."³. The Examiner attempts to utilize Maturi to make up for the fact that Okada does not generate, for use by a control unit⁴ such as video controller 24 (or 42 or 83), video messages which identify where the encoded video data is stored in video bit buffer 22.

In particular, the Examiner presently attempts to combine Okada and Maturi in substantially the same way that the Examiner attempted to combine the two references in the Office Action mailed 30 April 2004 except that the alleged motivation for combining Okada and Maturi is different. As stated on page 6 of the 30 April 2004 Office Action, the previously alleged motivation for combining Maturi with Okada was "to synchronize the video and audio data". The Examiner now alleges, on page 5 of the present Office Action, that "The motivation would have been to reduce the number [of] times that demultiplexing device generates the interrupted signals for transmitting to the controller".

³ This statement appears to be inconsistent with the Examiner's earlier assertion on page 2 of the present Office Action that Okada has a stream demultiplexer that operates "to provide, for use by the control unit, video messages which identify where the encoded video data is stored in the video buffer and which also deal with the video timing information". If the rejection is maintained in any aspect, it would be appreciated if the Examiner would provide a modified rejection in which each such inconsistency is removed.

⁴ In a number of places in the present Office Action (and also in the previous Office Actions), the Examiner seems to have mixed up the audio and video portions of Okada's decoding system. For example, on page 2 of the present Office Action, the Examiner appears to have analogized the control unit of Claims 41 and 67 to audio controller 14 of Okada. Presumably, the Examiner intended to analogize the control unit of Claims 41 and 67 to video controller 24 (or 42 or 83) of Okada possibly in combination with audio controller 14. On page 3 of the Office Action, the Examiner parenthetically refers to audio buffer 12 of Okada as "video" buffer 12.

In responding to the present rejection, Applicants' Attorney has attempted to straighten out these apparent mix-ups, i.e., to view the wording of the present Office Action in the way that the Examiner presumably intended. Nonetheless, if the rejection is maintained in any aspect, it would be appreciated if the Examiner would provide a modified rejection in which each such mix-up is corrected.

In response to the comments made on pages 17 - 21 of the Response submitted 29 July 2004, the Examiner further stated on pages 6 and 7 of the Office Action mailed 27 April 2005 that:

[T]he examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Okada discloses a method and system for demultiplexing the mpeg signal into video for storing in buffer 12, audio for storing in buffer 22, video PTS for storing in register 21 and audio PTS for storing in register 11, wherein the PTS is used to generate a tag includes PTS and a address of the video data that stored in the buffer 22 ***without interrupt the controller***, See Fig 4 and 7⁵. Maturi discloses a method and system for demultiplexing and depacketizing the mpeg signal into video data 20b, audio data 20d, video header 20a, audio header 20c, which includes a tag and PTS. Upon detecting the tag and PTS an interrupt signal is forwarded to CPU in order to allow the CPU for storing the information in a list "RAM" to be used by the control unit (See col. 2, lines 65 to col. 3, lines 6; See col. 5, lines 37 to col. 6, lines 48). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of providing a control unit with tags that includes timing and location of the encoded audio and video data as disclosed by Maturi into Okada's system.

The Examiner concluded these comments by repeating the allegation that "The motivation would have been to reduce the number [of] times that demultiplexing device generates the interrupted signals for transmitting to the controller".

Accepting temporarily the Examiner's new motivation for combining Okada and Maturi, the development of a new motivation for combining the two references does not alter the fact that the Examiner is still attempting to combine the two references in substantially the same way as before. The comments presented in the 29 July 2004 Response as to why it would not be obvious to combine Okada and Maturi for the previously alleged motivation substantially apply to the motivation now alleged for combining the two references.

More specifically, combining Okada and Maturi in the manner now proposed by the Examiner is illogical because the decoding of the audio and video data is already synchronized in both Okada's decoding system and Maturi's decoding system. As stated on

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page 18 of the 29 July 2004 Response, there would be no need for using an additional synchronization technique, such as that described in Maturi, for synchronizing Okada's video and audio data. Attempting to combine Okada and Maturi in the proposed manner would probably lead to a destructive result and, in any event, would not produce a constructive result.

The federal courts have made it clear that the entire teaching of a reference employed in rejecting a claim in a U.S. patent application as obvious must be considered in making the rejection. For instance, the Court of Appeals for the Federal Circuit stated on page 1317 of In re Kotzab (CAFC 2000) 55 USPQ2d 1313, copy provided with the 27 July 2005 Response, in reversing an obviousness rejection that:

While the test for establishing an implicit teaching, motivation, or suggestion is what the combination of these two statements of Evans [the reference cited against the claims at issue] would have suggested to those of ordinary skill in the art, the two statements cannot be viewed in the abstract. Rather, they must be considered in the context of the teaching of the entire reference.

Hence, it is impermissible to utilize part of a reference's teaching in making an obviousness rejection while ignoring another part which mandates against the rejection.

In the present circumstances, Okada's video and audio data is already synchronized. This fact must be considered in attempting to combine Okada with another prior art reference, such as Maturi, for the purpose of making an obviousness rejection. Inasmuch as Maturi's video and audio data is also synchronized, the fact that combining Okada and Maturi in the proposed way would lead to a non-useful result must likewise be considered in attempting to apply Maturi to Okada.

A person skilled in the art would have no incentive to combine material from two (or more) references in such a way as to produce a non-useful result. Since combining Okada and Maturi in the proposed manner would yield a non-useful result, a person skilled in the art would not be motivated to combine the two references regardless of whether the motivation is "to synchronize the video and audio data" as asserted in prior Office Actions or "to reduce the number [of] times that demultiplexing device generates the interrupted signals for transmitting to the controller" as asserted in the present Office Action.

⁵ This is another instance where the Examiner seems to have mixed up the audio and video portions of Okada's decoding system. Buffer 12 again is an audio buffer and thus stores audio data rather than the asserted video data. Similarly, buffer 22 is a video buffer and thus stores video data rather than the asserted audio data.

Additionally, an interruptible controller would replace non-interruptible audio controller 14 and/or non-interruptible video controller 24 (or 42 or 83) in Okada's decoding system if Maturi were combined with Okada in the manner proposed by the Examiner based on the alleged motivation of reducing the number of times that the demultiplexing device generates interrupt signals for interrupting the controller. However, demultiplexer 5 in Okada's system does not send any interrupt signals to audio controller 14 or video controller 24 (or 42 or 83) because neither controller 14 nor controller 24 (or 42 or 83) is interruptible. Consequently, substituting an interruptible controller for audio controller 14 and/or video controller 24 (or 42 or 83) cannot reduce the number of interrupt signals sent by demultiplexer 5 to the controller.

The new motivation asserted by the Examiner for combining Okada and Maturi cannot be achieved and therefore cannot actually serve as motivation for combining the two references in the proposed way. The Examiner's rationale for combining Okada and Maturi again falls apart. This is a separate reason why independent Claims 41 and 67 are patentable over Okada and Maturi.

The Examiner has not presented anything to cast any doubt on the foregoing reasons, originally presented in the 1 July 2005 Response, as to why Claims 41 and 67 are patentable over Okada and Maturi. Applicants' Attorney sees no other motivation for combining the two references in the manner proposed by the Examiner. Accordingly, Claims 41 and 67 are patentable over Okada and Maturi.

Claims 42 - 52, 55 - 60, 62 - 66, 83, and 84 all depend from (directly or indirectly) from Claim 41. The same applies to new Claims 87 - 90. Claims 68 - 75, 78 - 82, 85, and 86, along with new Claims 91 and 92, all depend (directly or indirectly) from Claim 67. Hence, dependent Claims 42 - 52, 55 - 60, 62 - 66, 68 - 75, and 78 - 92 are patentable over Okada and Maturi for the same reasons as independent Claims 41 and 67.

Dependent structure Claim 42 recites that "the control unit is interrupted in response to a synchronization signal for reading the video messages provided by the system demultiplexer and for providing the video instructions to the video decoder". Dependent structure Claim 59 similarly recites that, "in response to a synchronization signal generated by the video output processor, the control unit is interrupted for reading the video messages

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provided by the stream demultiplexer and for providing the video instructions to the video decoder".

Dependent method Claim 68 recites that the method further includes "generating a synchronization signal" and "interrupting the control unit in response to the synchronization signal for causing the control unit to read the video messages and to generate the video instructions". Dependent method Claim 79 similarly recites that the method further includes "utilizing a video output processor that processes the decoded video data to generate a synchronization signal" and "interrupting the control unit in response to the synchronization signal for reading the video messages and for generating the video instructions".

Inasmuch as Okada's audio and video controller do not appear capable of being interrupted during the performance of one task in order to perform another task, Okada does not meet the synchronization-signal requirement of Claim 42, 59, 68, or 79. Separate grounds are thereby provided for allowing Claims 42, 59, 68, and 79 over Okada and Maturi. The same applies (a) to Claims 43 - 47 because they all depend (directly or indirectly) from Claim 42, (b) to Claim 60 because it depends from Claim 59, (c) to Claims 69 - 73 because they all depend (directly or indirectly) from Claim 68, and (d) to Claim 80 because it depends from Claim 79.

With apparent reference to Claims 83 - 86 dealing with memory management units, the Examiner alleges on page 4 of the present Office Action that Okada "implicitly disclose a memory management unit for controlling writing and reading the audio or video data to/from buffer (Fig 11)". However, nothing in Okada inherently requires that Okada's audio/video decoding system utilize a memory management unit. There is no support for the Examiner's allegation that Okada "implicitly disclose a memory management unit for controlling writing and reading the audio or video data to/from buffer (Fig 11)". A separate basis is thus provided for allowing Claims 83 - 86 over Okada and Maturi. The same applies to new Claims 88 - 92 because they also deal with memory management units.

Claim 83 further recites that the data buffer, i.e., the memory unit containing the audio and video input buffers, "is external to an integrated circuit containing the control unit". Claim 85 similarly further recites the act of "including accessing the video and audio input buffers external to an integrated circuit containing the control unit".

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Nothing in Okada discloses or suggests that audio controller 14 or video controller 24 (or 42 or 83) is situated on a separate integrated circuit from audio register 11, audio buffer 12, video register 21, or video buffer 22. Accordingly, Claims 83 and 85 are separately patentable over Okada and Maturi.

Claims 53, 54, 76, and 77 have again been rejected under 35 USC 103(a) as obvious based on Okada and Maturi in view of Nuber et al. ("Nuber"), U.S. Patent 5,703,877. Claim 61 has again been rejected under 35 USC 103(a) as obvious based on Okada and Maturi in view of Terashima et al. ("Terashima"), U.S. Patent 6,163,647. These rejections are respectfully traversed.

Claims 53, 54, and 61 each depend (directly or indirectly) from Claim 41 rejected as obvious based on Okada and Maturi. Claims 76 and 77 each depend (directly or indirectly) from Claim 67 likewise rejected as obvious based on the two references. For the reasons presented above, neither of Claims 41 and 67 is obvious based on Okada and Maturi. Nothing in Nuber or/and Terashima would justify combining Okada and Maturi so as to make Claim 41 or 67 obvious. Consequently, Claims 53, 54, 61, 76, and 77 are variously patentable over Okada, Maturi, and Nuber or Terashima for the same reasons that Claims 41 and 67 are patentable over Okada and Maturi.

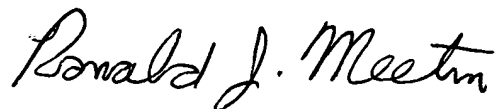
In summary, the 35 USC 132 new-matter objection to the specification should be withdrawn. Claims 41 - 92 have been shown to be patentable over the applied art. Accordingly, Claims 41 - 92 should be allowed so that the application may proceed to issue.

Please telephone Attorney for Applicant(s) at 650-964-9767 if there are any questions.

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